Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method for logically remapping the commands to logical

buttons for a navigational device comprising a computing device coupled to a physically

rotate able display device having a display, said navigational device having logical buttons

and associated commands for such logical buttons, said method comprising:

detecting a change in orientation of <u>images presented on</u> the display from a first

orientation to a second orientation at the computing device; and

responsive to the detection of the change in orientation of the <u>images presented on the</u>

display, automatically logically remapping the commands to the logical buttons based on the

second orientation of the images presented on the display.

2. (Original) The method of claim 1 wherein the display device is a visual display

device.

3. (Original) The method of claim 1 wherein the display device is a non-visual display

device.

4. (Original) The method of claim 1 wherein the display device is one from the group

comprising: visual display device, audio display device, and tactile display device.

5. (Currently amended) The method of claim 1, further comprising detecting a change

in orientation of the display device at the computing device and, responsive to the detection

of the change in orientation of the display device, automatically changing the orientation of

the <u>images presented on the</u> display.

Page 2 of 16

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

6. (Currently amended) The method of claim 1, further comprising detecting a command to change the orientation of the <u>images presented on the</u> display from the first orientation to the second orientation at the computing device and, responsive to the detection of the command, automatically changing the orientation of the <u>images presented on the</u> display from the first orientation to the second orientation.

- 7. (Canceled)
- 8. (Canceled)
- 9. (Original) The method of claim 1 wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons.
- 10. (Previously presented) The method of claim 1 wherein the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation.
- 11. (Currently amended) The method of claim 10 wherein:

if the <u>images presented on the display [[is]]</u> are rotated one quarter to the right, the commands for UP and DOWN are transposed;

if the <u>images presented on the display [[is]] are</u> rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

if the <u>images presented on the display [[is]] are</u> rotated three-quarters to the right, then the commands for PREV and NEXT are transposed.

12. (Currently amended) A user interface system attached to a display device for logically remapping the commands to logical buttons for a navigational device coupled to a physically rotate able the display device having a display, said navigational device having logical buttons and associated commands for such logical buttons, said system comprising;

a subsystem for detecting a change in orientation of <u>images presented on</u> the display from a first orientation to a second orientation; and

a subsystem for, responsive to the detection of the change in orientation of the <u>images</u> <u>presented on the display</u>, automatically logically remapping the commands to the logical buttons based on the second orientation of the display.

- 13. (Previously presented) The user interface system of claim 12 wherein the display device is a visual display device.
- 14. (Previously presented) The user interface system of claim 12 wherein the display device is a non-visual display device.
- 15. (Previously presented) The user interface system of claim 12 wherein the display device is one from the group comprising: visual display device, audio display device, and tactile display device.
- 16. (Currently amended) The user interface system of claim 12 wherein, further comprising a subsystem for detecting a change in orientation of the display device, and a subsystem for, responsive to the detection of the change in orientation of the display device, automatically changing the orientation of the images presented on the display.

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

17. (Currently amended) The user interface system of claim 12, further comprising a subsystem for detecting a command to change the orientation of the <u>images presented on the</u> display from the first orientation to the second orientation, and a subsystem for, responsive to the detection of the command, automatically changing the orientation of the <u>images presented</u> on the display from the first orientation to the second orientation.

- 18. (Canceled)
- 19. (Canceled)
- 20. (Previously presented) The user interface system of claim 12 wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons.
- 21. (Previously presented) The user interface system of claim 12 wherein the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation.
- 22. (Currently amended) The user interface system of claim 21 wherein:

if the <u>images presented on the display [[is]]</u> <u>are</u> rotated one quarter to the right, the commands for UP and DOWN are transposed;

if the <u>images presented on the display [[is]]</u> <u>are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and</u>

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

if the <u>images presented on the display [[is]] are</u> rotated three-quarters to the right, then the commands for PREV and NEXT are transposed.

23. (Currently amended) A computer-readable medium having computer-readable

instructions for a method of logically remapping the commands to logical buttons for a

navigational device coupled to a physically rotate-able display device having a display, said

navigational device having logical buttons and associated commands for such logical buttons,

said method comprising;

detecting a change in orientation of <u>images presented on the</u> display from a first

orientation to a second orientation; and

responsive to the detection of the change in orientation of the <u>images presented on the</u>

display, automatically logically remapping the commands to the logical buttons based on the

second orientation of the display.

24. (Previously presented) The computer-readable medium of claim 23 wherein the

display device is a visual display device.

25. (Previously presented) The computer-readable medium of claim 23 wherein the

display device is a non-visual display device.

26. (Previously presented) The computer-readable medium of claim 23 wherein the

display device is one from the group comprising: visual display device, audio display device,

and tactile display device.

27. (Currently amended) The computer-readable medium of claim 23 wherein the

method further comprises detecting a change in orientation of the display device and,

Page 6 of 16

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

responsive to the detection of the change in orientation of the display device, automatically changing the orientation of the <u>images presented on the</u> display.

- 28. (Currently amended) The computer-readable medium of claim 23 wherein the method further comprises detecting a command to change the orientation of the <u>images</u> presented on the display from the first orientation to the second orientation and, responsive to the detection of the command, automatically changing the orientation of the <u>images presented</u> on the display from the first orientation to the second orientation.
- 29. (Canceled)
- 30. (Canceled)
- 31. (Previously presented) The computer-readable medium of claim 23 wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons.
- 32. (Previously presented) The computer-readable medium of claim 23 wherein the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation.
- 33. (Currently amended) The computer-readable medium of claim 32 wherein:

if the <u>images presented on the display [[is]]</u> <u>are</u> rotated one quarter to the right, the commands for UP and DOWN are transposed;

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

if the <u>images presented on the display [[is]] are</u> rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and

if the <u>images presented on the display [[is]]</u> are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed.

34. (Currently amended) A hardware control device for a method of logically remapping the commands to logical buttons for a navigational device coupled to a physically rotate able display device having a display, said navigational device having logical buttons and associated commands for such logical buttons, said navigational device further comprising:

a component configured to detect a change in orientation of <u>images presented on the</u> display from a first orientation to a second orientation and, responsive to the detection of the change in orientation of the <u>images presented on the</u> display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display.

- 35. (Original) The hardware control device of claim 34 wherein the display device is a visual display device.
- 36. (Original) The hardware control device of claim 34 wherein the display device is a non-visual display device.
- 37. (Original) The hardware control device of claim 34 wherein the display device is one from the group comprising: visual display device, audio display device, and tactile display device.

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

38. (Currently amended) The hardware control device of claim 34 wherein the component is further configured to detect a change in orientation of the display device and, responsive to the detection of the change in orientation of the display device, automatically changing the orientation of the images presented on the display.

39. (Currently amended) The hardware control device of claim 34 wherein the component is further configured to detect a command to change the orientation of the <u>images</u> <u>presented on the display</u> from the first orientation to the second orientation and, responsive to the detection of the command, automatically changing the orientation of the <u>images presented on the display</u> from the first orientation to the second orientation.

- 40. (Canceled)
- 41. (Canceled)
- 42. (Original) The hardware control device of claim 34 wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons.
- 43. (Previously presented) The hardware control device of claim 34 wherein the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation.
- 44. (Currently amended) The hardware control device of claim 43 wherein:

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

if the <u>images presented on the</u> display [[is]] <u>are</u> rotated one quarter to the right, the

commands for UP and DOWN are transposed;

if the <u>images presented on the display</u> [[is]] <u>are</u> rotated one half to the right, then the

commands for UP and DOWN are transposed, and the commands for PREV and NEXT are

transposed; and

if the <u>images presented on the display</u> [[is]] <u>are</u> rotated three-quarters to the right, then

the commands for PREV and NEXT are transposed.

45. (Canceled)

46. (Withdrawn) A system for increasing user interface effectiveness for a navigational

device coupled to a physically rotate-able display device having a display, said navigational

device having logical buttons and associated commands for such logical buttons, wherein

said navigational device is rotationally movable separate from the display device.

47. (Withdrawn) The system of claim 46 wherein the navigational device is capable of

being rotated in the opposite direction of the display device when the display device is being

rotated.

48. (Withdrawn) The system of claim 46 wherein the orientation of the navigational

device is capable of being rotated independently of the orientation of the display device.

49. (Withdrawn) A method for increasing user interface effectiveness for a navigational

device coupled to a physically rotate-able display device having a display, said navigational

device having logical buttons and associated commands for such logical buttons, and said

navigational device being rotationally movable separate from the display device, said method

comprising the rotation of said navigational device.

Page 10 of 16

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO

37 CFR § 1.116

50. (Withdrawn) The method of claim 49 wherein the navigational device is rotated in

the opposite direction of the display device when the display device is being rotated.

51. (Withdrawn) The method of claim 49 wherein the orientation of the navigational

device is rotated independently of the orientation of the display device.

52. (Withdrawn) A computer-readable medium having computer-readable instructions

for a navigational device coupled to a physically rotate-able display device having a display,

said navigational device having logical buttons and associated commands for such logical

buttons, wherein said navigational device is rotationally movable separate from the display

device.

53. (Withdrawn) The computer-readable medium of claim 52 wherein the navigational

device is capable of being rotated in the opposite direction of the display device when the

display device is being rotated.

54. (Withdrawn) The computer-readable medium of claim 52 wherein the orientation of

the navigational device is capable of being rotated independently of the orientation of the

display device.

55. (Withdrawn) A hardware control device for increasing user interface effectiveness

comprising a navigational device coupled to a physically rotate-able display device having a

display, said navigational device having logical buttons and associated commands for such

logical buttons, wherein said navigational device is rotationally movable separate from the

display device.

Page 11 of 16

Application No.: 10/769,691

Office Action Dated: April 30, 2009

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

56. (Withdrawn) The hardware control device of claim 55 wherein the navigational

device is capable of being rotated in the opposite direction of the display device when the

display device is being rotated.

57. (Withdrawn) The hardware control device of claim 55 wherein the orientation of the

navigational device is capable of being rotated independently of the orientation of the display

device.

58. (Withdrawn) A method for increasing user interface effectiveness for a navigational

device coupled to a physically rotate-able display device having a display, said navigational

device having logical buttons and associated commands for such logical buttons, said method

for said navigational device comprising means by which said navigational device can be

rotated separate from the display device.

59. (Withdrawn) The method of claim 58 wherein the navigational device comprises

means for being rotated in the opposite direction of the display device when the display

device is being rotated.

60. (Withdrawn) The method of claim 58 wherein the orientation of the navigational

device comprises means for being rotated independently of the orientation of the display

device.

Page 12 of 16